Exhibit 19

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FAIRCHILD SEMICONDUCTOR CORP.

UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

ALPHA & OMEGA SEMICONDUCTOR, INC., a California corporation; and ALPHA & OMEGA SEMICONDUCTOR, LTD., a Bermuda corporation, Plaintiffs and Counterdefendants, v. FAIRCHILD SEMICONDUCTOR CORP., a Delaware corporation, Defendant and Counterclaimant. AND RELATED COUNTERCLAIMS.	Case No. C 07-2638 JSW (Consolidated with Case No. C 07-2664 JSW) **FAIRCHILD SEMICONDUCTOR CORPORATION'S AMENDED DISCLOSURE OF ASSERTED CLAIMS AND PRELIMINARY INFRINGEMENT CONTENTIONS** **(Patent L.R. 3-1)**

Pursuant to Northern District of California Patent Local Rule 3-1, defendant and counterclaimant Fairchild Semiconductor Corporation ("Fairchild") hereby serves its Amended Disclosure of Asserted Claims and Preliminary Infringement Contentions ("Disclosure") for U.S. Patent Nos. 6,429,481, 6,521,497, 6,710,406, and 6,828,195. This Disclosure is based on information reasonably available to Fairchild at this time. Fairchild reserves the right to supplement this

Disclosure based on information developed in the course of this lawsuit through discovery or additional factual investigation, in view of the Court's claim construction ruling or as other circumstances may require.

I. ASSERTED CLAIMS AND ACCUSED PRODUCTS

Based upon the information presently available, Fairchild contends that plaintiffs and counterdefendants Alpha & Omega Semiconductor, Inc., and Alpha & Omega Semiconductor, Ltd., (collectively, "AOS") have infringed and continue to infringe, directly and/or indirectly, the following claims of U.S. Patent Nos. 6,429,481 ("the '481 patent"), 6,521,497 ("the '497 patent"), 6,710,406 ("the '406 patent") and 6,828,195 ("the '195 patent") (collectively, "the Fairchild patents-in-suit") by making, using, offering to sell, selling within the United States, or importing into the United States the following accused products of which Fairchild is presently aware (or importing into the United States products made by methods claimed in the Fairchild patents-in-suit).

Patent Number	Asserted Claims	Accused Products
The '481 patent	Claims 1-4, 6-8, 10, 11, 18, 21 (against accused products with closed cell design) Claims 1-4, 6-11, 15-18, 21, 22 (against accused products with striped design)	See attached Exhibit 1
The '497 patent	Claims 1-7, 8, 9, 11-13, 15-17 (against accused products with closed cell design) Claims 1-9, 11-13, 15-17 (against accused products with striped design)	See attached Exhibit 1
The '406 patent	Claims 1-6, 10-12, 13-15, 17, 25-32 (against accused products with closed cell design) Claims 1-6, 10-17, 24-32 (against accused products with striped design)	See attached Exhibit 1
The '195 patent	Claims 1, 2, 6-13, 15-17, 21, 22 (against accused products with closed cell design) Claims 1, 2, 6-13, 15-22 (against accused products with striped design)	See attached Exhibit 1

II. CLAIM CHARTS

Claim charts identifying specifically where each element of each asserted claim is found within each accused device or the process by which each accused device was made are attached hereto as Exhibits 2 through 57. These claim charts are based on information available to Fairchild at this time and are based, in part, upon reverse engineering of a reasonable sampling of AOS products. Fairchild contends that each of the accused AOS products meets the limitations of the asserted claims because, based upon their published characteristics, they are likely to have the same design and structure as the products for which reverse engineering data is provided. In addition, each of the accused AOS products is likely to have been manufactured using a process that is the same or similar in all respects relevant to the asserted claims as the products for which reverse engineering data is provided.

To date, AOS has not provided all of the requested discovery. Additionally, prior to the commencement of this litigation, on May 17, 2007, Fairchild requested that AOS produce, subject to a confidentiality agreement, information regarding the processes by which the accused products are manufactured. AOS refused to produce the information. Consequently, Fairchild is likely to have additional evidentiary support regarding AOS's infringement after a reasonable opportunity for further investigation and discovery.

III. INFRINGEMENT

Fairchild contends that, when the terms of the asserted claims are properly construed, each limitation of each asserted claim is literally present in the corresponding accused device or in the process used to manufacture the accused device as set forth in Sections II above. In the alternative, if warranted by the Court's claim construction, Fairchild reserves the right to contend that any element not found to be literally present in an accused product is present under the doctrine of equivalents.

IV. PRIORITY DATES

Fairchild contends that the asserted claims for each of the Fairchild patents-in-suit are entitled to a priority date of November 14, 1997.

V. FAIRCHILD'S PRACTICE OF THE CLAIMED INVENTIONS

Fairchild wishes to preserve the right to rely, for any purpose, on the assertion that its own

products and/or processes practice the inventions claimed in each of the asserted claims. Accordingly, Fairchild identifies the following products and/or processes that incorporate or reflect the limitations of the corresponding asserted claims.

Patent Number	Asserted Claims	Fairchild's Products and/or Processes
6,429,481	1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 15, 16, 17, 18, 21, 22	PowerTrench® MOSFETs
6,521,497		None
6,710,406	1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 16, 17, 24, 25, 26, 27, 29, 30, 31, 32	PowerTrench® MOSFETs
6,828,195	1, 2, 6, 7, 13, 15, 16, 17, 18, 19, 20, 21, 22	PowerTrench® MOSFETs

VI. PRODUCTION OF DOCUMENTS

Fairchild previously produced documents within its possession, custody, or control required by Northern District of California Patent Local Rule 3-2.

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DATED: February 25, 2008

Respectfully submitted,

By: _____

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61291875 v1

CERTIFICATE OF SERVICE
[C.C.P. §§ 1011 and 1013, C.R.C.§ 2008, F.R.C.P. Rule 5, F.R.A.P. 25]

I declare that I am employed in the City and County of San Francisco, California; I am over the age of 18 years and not a party to the within action; my business address is Two Embarcadero Center, Eighth Floor, San Francisco, California, 94111. On the date set forth below, I served a true and accurate copy of the document(s) entitled:

FAIRCHILD SEMICONDUCTOR CORPORATION'S AMENDED DISCLOSURE OF ASSERTED CLAIMS AND PRELIMINARY INFRINGEMENT CONTENTIONS

on the party(ies) in this action by placing said copy(ies) in a sealed envelope each addressed as follows:

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☐ [By First Class Mail] I am readily familiar with my employer's practice for collecting and processing documents for mailing with the United States Postal Service. On the date listed herein, following ordinary business practice, I served the within document(s) at my place of business, by placing a true copy thereof, enclosed in a sealed envelope, with postage thereon fully prepaid, for collection and mailing with the United States Postal Service where it would be deposited with the United States Postal Service that same day in the ordinary course of business.

☐ [By Overnight Courier] I caused each envelope to be delivered by a commercial carrier service for overnight delivery to the offices of the addressee(s).

☒ [By Hand] I directed each envelope to the party(ies) so designated on the service list to be delivered by courier this date.

☐ [By Facsimile Transmission] I caused said document to be sent by facsimile transmission to the fax number indicated for the party(ies) listed above.

☐ [By Electronic Transmission] I caused said document to be sent by electronic transmission to the e-mail address(es) indicated for the party(ies) listed above.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed February 25, 2008 at San Francisco, California.

Linda Hegenbarth

61291875 v1

Exhibit 1

ALPHA & OMEGA SEMICONDUCTOR

MOSFET Selector Guide - All Products

Part Number	Status	Replacement Part	Package	Configuration	Popular Applications	Type	ESD Diode	Schottky Diode	Schottky Type	V_{DS} (V)	V_{GS} (±V)	I_D (A) @ 25°C	I_D (A) @ 70°C	P_D (W) @ 25°C	P_D (W) @ 70°C	$R_{DS(on)}$ (mΩ max) at V_{GS} = 10V	$R_{DS(on)}$ (mΩ max) at V_{GS} = 4.5V	$R_{DS(on)}$ (mΩ max) at V_{GS} = 2.5V	$R_{DS(on)}$ (mΩ max) at V_{GS} = 1.8V	$V_{GS(th)}$ (max V)	Ciss (pF)	Crss (pF)	Qg (nC)	Qgd (nC)	Td(on) (ns)	Td(off) (ns)
AO3400	Not for new designs	AO3400A	SOT-23	Single	General Purpose	N	No	No		30	12	5.8	4.9	1.4	1	28	33	52		1.4	823	77	9.7	3.1	3.3	26.3
AO3400A	New		SOT-23	Single	General Purpose	N	No	No		30	12	5.7	4.7	1.4	0.9	26.5	32			1.5	900	65	10	3.75	3.2	21.5
AO3401	Not for new designs	AO3401A	SOT-23	Single	General Purpose	P	No	No		-30	12	-4.2	-3.5	1.4	1	50	85	120		-1.3	954	77	9.4	3	6.3	38.2
AO3401A	New		SOT-23	Single	General Purpose	N	No	No		-30	12	-4.3	-3.6	1.4	0.9	44	55	80		-1.3	933	81	9.9	3.7	5.2	42
AO3402	Full Production		SOT-23	Single	General Purpose	N	No	No		30	12	4	3.4	1.4	1	55	70	110		1.4	390	41	4.34	1.38	3.3	21.7
AO3403	Full Production		SOT-23	Single	General Purpose	P	No	No		-30	12	-2.6	-2.2	1.4	1	130	180	260		-1.4	409	42	4.4	1.32	5.3	31.5
AO3404	Not for new designs	AO3404A	SOT-23	Single	General Purpose	N	No	No		30	20	5.8	4.9	1.4	1	28	43			3	880	77	6.78	3.12	4.6	20.9
AO3404A	New		SOT-23	Single	General Purpose	N	No	No		30	20	5.8	4.9	1.4	0.9	28	42			3	821	85	5.7	3	4.5	15.1
AO3406	Full Production		SOT-23	Single	General Purpose	N	No	No		30	20	3.6	2.9	1.4	0.9	65	105			3	288	39	3.1	1.6	4.6	20.1
AO3407	Not for new designs	AO3407A	SOT-23	Single	General Purpose	P	No	No		-30	20	-4.1	-3.5	1.4	1	52	87			-3	700	75	7	3	8.6	28.2
AO3407A	New		SOT-23	Single	General Purpose	P	No	No		-30	20	-4.3	-3.5	1.4	0.9	48	78			-2.5	868	82	8.4	4	7.7	29
AO3409	Full Production		SOT-23	Single	General Purpose	P	No	No		-30	20	-2.6	-2.2	1.4	1	130	200			-3	302	37.8	2.4	0.95	7.5	17
AO3413	Full Production		SOT-23	Single	General Purpose	P	No	No		-20	8	-3	-2.4	1.4	0.9		97	130	190	-1	540	49	6.1	1.8	10	44
AO3414	Full Production		SOT-23	Single	General Purpose	N	No	No		20	8	4.2	3.2	1.4	0.9		50	80	87	1	436	44	6.2	0.5	5.5	40
AO3415	Full Production		SOT-23	Single	General Purpose	P	Yes	No		-20	8	-4	-3.5	1.4	0.9		43	54	73	-1	1450	160	17.2	4.5	9.5	94
AO3416	Full Production		SOT-23	Single	Load Switch	N	Yes	No		20	8	6.5	5.2	1.4	0.9		22	26	34	1	1160	146	16	3.8	6.2	51.7
AO3418	Full Production		SOT-23	Single	SMPS	N	No	No		30	12	3.8	3.1	1.4	0.9	80	70	155		1.8	228	29	3	0.55	2.6	14.5
AO3419	Full Production		SOT-23	Single	General Purpose	P	Yes	No		-20	12	-3.5	-2.8	1.4	0.9	75	95	145		-1.4	512	62	5.5	1.9	5	28
AO3420	Full Production		SOT-23	Single	Load Switch	N	No	No		20	12	6	5	1.4	0.9	24	27	42	55	1	630	137	8.8	3.7	5.5	29
AO3421	Full Production		SOT-23	Single	General Purpose	P	No	No		-30	20	-2.6	-2.2	1.4	1	130	200			-3	302	37.8	2.4	0.95	7.5	17
AO3422	Full Production		SOT-23	Single	General Purpose	N	No	No		55	12	2.1	1.7	1.25	0.8		160	200		2	214	12.6	2.8	0.8	2.9	18.5
AO3423	New		SOT-23	Single	General Purpose	P	No	No		-20	12	-2	-2	1.4	0.9	92	118	166		-1.4	512	62	5.5	1.9	5	28
AO3424	New		SOT-23	Single	General Purpose	N	No	No		30	12	2	2	1.4	0.9	80	95	157		1.8	226	29	2.6	0.5	2.6	14.5
AO3430	Full Production		SOT-23	Single	General Purpose	N	No	No		20	8	2	2	1.4	0.9	57	70	93		1	436	44	6.2	0.5	5.5	40
AO3434	New		SOT-23	Single	Battery Protection	N	Yes	No		30	20	3.5	2.8	1	0.64	52	75			1.8	269	41	5	0.65	2.6	15.2
AO3700	New		SOT-23-5	Single	General Purpose	N	Yes	No		30	12	3.3	2.6	1.15	0.7	65	75	160		2	226	29	4.6	0.55	2.6	14.5
AO3701	New		SOT-23-5	Single	General Purpose	P	Yes	No		-20	12	-3	-2.3	1.14	0.72	60	100	145		-1.4	512	62	5.5	1.9	5	28
AO3702	New		SOT-23-5	Single	General Purpose	P	No	YES	0.5A	-20	8	-2.7	-2.1	1.14	0.72		97	130	190	-1	540	49	6.1	1.8	10	44
AO4403	Full Production		SO-8	Single	General Purpose	P	No	No		-30	12	-5.1	-4.1	3	2.1	46	61	117		-1.3	940	73	9.4	3	7.6	44.7
AO4404	Not for new designs	AO4404B	SO-8	Single	General Purpose	N	No	No		30	12	6.6	7.1	3	2.1	24	30	48		1.4	857	71	9.7	3.1	3.5	26
AO4404B	New		SO-8	Single	General Purpose	N	No	No		30	12	8.5	7.1	2.8	1.8	24	30	48		1.5	900	86	10	3.75	3.3	21.5
AO4405	Not for new designs	AO4459	SO-8	Single	General Purpose	P	No	No		-30	20	-8	-5.1	3	2.1	50	85			-3	700	78	7.6	3.8	8.6	28.2
AO4406	Not for new designs		SO-8	Single	SMPS High Side	N	No	No		30	12	11.5	9.6	3	2.1	14	16.5	20		1.5	1630	142	18	5.5	4	32
AO4407	Full Production		SO-8	Single	Load Switch	P	No	No		-30	25	-12	-10	3	2.1	14				-3	2076	302	*37.2	10.4	12.4	29.6
AO4408	Not for new designs	AO4474	SO-8	Single	SMPS High Side	N	No	No		30	12	12	10	3	2.1	14	16.5			2.5	1020	80	10.3	3.9	3.9	19.2
AO4409	Full Production		SO-8	Single	Load Switch	P	No	No		-30	20	-15	-12.8	3	2.1	7.5	12			-2.7	5270	745	51.5	23	14	78.5
AO4410	Not for new designs	AO4706	SO-8	Single	SMPS Low Side	N	No	No		30	12	18	15	3	2.1	5.5	6.2			1.5	9130	387	72.4	16.8	11	99
AO4411	Not for new designs	AO4449	SO-8	Single	General Purpose	P	No	No		-30	20	-8	-6.6	3	2.1	32	55			-2.4	920	122	9.3	4.9	7.1	16.5
AO4412	Obsolete	AO4404B	SO-8	Single	SMPS High Side	N	No	No		30	12	8.5	7.1	3	2.1	26	34			3	590	40	6.04	2.56	3.7	14.9
AO4413	Full Production		SO-8	Single	Load Switch	P	No	No		-30	25	-15	-12.8	3	2.1	8.5				-3.5	4360	762	*78	23.6	17.5	49
AO4414	Last Time Buy 6/07/07	AO4466	SO-8	Single	General Purpose	N	No	No		30	20	8.5	7.1	3	2.1	20	40			3	680	77	6.74	3.32	4.5	20.1
AO4415	Full Production		SO-8	Single	Load Switch	P	No	No		-30	25	-8	-6.6	3	2.1	36				-3.5	893	151	*16.6	5.2	10.5	15.1
AO4416	Not for new designs	AO4466	SO-8	Single	General Purpose	N	No	No		30	25	11.5	9.7	3	2.1	17	40			3	758	128	*16.6	4.5	5.4	14.4
AO4419	Full Production		SO-8	Single	General Purpose	P	No	No		-30	20	-9.7	-8.1	3	2.1	20	35			-2.7	1570	211	19.7	6.8	9.5	44.2
AO4420	Not for new designs	AO4420A	SO-8	Single	General Purpose	N	No	No		30	12	13.7	9.7	3.1	2	10.5	12			2	3856	168	30.5	8.6	5.5	49.8
AO4420A	New		SO-8	Single	General Purpose	N	No	No		30	12	13.7	9.7	3.1	2	10.5	12			2	3856	168	30.5	8.6	5.5	49.8
AO4421	Full Production		SO-8	Single	General Purpose	P	No	No		-60	20	-6.2	-5	3.1	2	40	50			-3	2417	120	22.7	9.2	9.8	44
AO4422	Last Time Buy 6/07/07	AO4468	SO-8	Single	General Purpose	N	No	No		30	20	11	9.3	3	2.1	15	24			3	1040	110	9.8	3.5	4.5	17.4
AO4423	Full Production		SO-8	Single	Load Switch	P	Yes	No		-30	25	-15	-12.1	3.1	2	8.5				-3.5	4832	705	*82	23	18.5	55
AO4425	Full Production		SO-8	Single	Load Switch	P	Yes	No		-38	25	-14	-11	3.1	2	11				-3.5	3800	550	*63	16.1	12.4	97.5
AO4427	Full Production		SO-8	Single	Load Switch	P	Yes	No		-30	25	-12.5	-10.5	3	2.1	14				-3	2330	320	*41	12	12.8	49.5
AO4429	Not for new designs	AO4447	SO-8	Single	Load Switch	P	Yes	No		-30	20	-15	-12.8	3.1	2	7.7	12			-2.7	5355	620	46	21	15	82.5
AO4430	Full Production		SO-8	Single	General Purpose	N	No	No		30	20	18	15	3	2.1	5.5	7.5			2.5	6060	355	48	15	12	51.5
AO4433	New		SO-8	Single	Load Switch	P	Yes	No		-30	25	-11	-9.7	3	2.1	18				-3.5	1780	255	*30	8	11.5	35
AO4437	Full Production		SO-8	Single	Load Switch	P	Yes	No		-12	8	-11	-9	3	2.1		18	20	25	-1	3960	757	37	11	15	158
AO4438	Full Production		SO-8	Single	Display	N	No	No		60	20	8.2	6.6	3.1	2	22	27			3	1920	116	24.2	14.4	8.2	29.7
AO4440	Full Production		SO-8	Single	Display	N	No	No		60	20	5	4	2.5	1.6	55	75			2.5	450	25	4.3	2.2	3.1	19.5
AO4441	Full Production		SO-8	Single	Display	P	No	No		-60	20	-4	-3.1	3.1	2	100	130			-3	930	35	8	3.2	8	21.5
AO4442	Full Production		SO-8	Single	Display	N	No	No		75	25	3.1	2.5	2.5	1.6	130	165			3	503	17	*5.2	1.36	4.5	15.6
AO4443	Full Production		SO-8	Single	Display	P	No	No		-40	20	-6.5	-5	3.1	2	42	63			-3	857	63	7.1	4.1	7.7	20.5
AO4446	Not for new designs	AO4476	SO-8	Single	SMPS High Side	N	No	No		30	20	15	12	3	2.1	8.5	14.5			3	1520	214	17	10	7.2	22
AO4447	New		SO-8	Single	Load Switch	P	Yes	No		-30	20	-15	-13.6	3.1	2	7.5				-1.6	5500	473	45.2	19.4	12	100
AO4449	New		SO-8	Single	Load Switch	P	No	No		-30	20	-7	-4.6	3.1	2	34	54			-3	980	115	9.6	4.8	7.7	20
AO4450	Full Production		SO-8	Single	Display	N	No	No		40	20	8.6	6.2	2.5	1.6	30	43			3	404	37	4.8	2.5	4.5	15
AO4456	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	20	16	3.1	2	4.6	5.6			2.4	6430	392	44	13	17.5	56
AO4459	New		SO-8	Single	Load Switch	P	No	No		-30	20	-6.5	-5.3	3.1	2	46	72			-2.6	868	92	8.4	4	7.7	20
AO4466	New		SO-8	Single	SMPS High Side	N	No	No		30	20	9.4	7.7	3.1	2.1	23	35			3	621	85	5.7	3	4.5	15.1
AO4468	New		SO-8	Single	SMPS	N	No	No		30	20	11.6	9.2	3.1	2	14	22			3	955	112	9	4.7	5	19
AO4474	New		SO-8	Single	SMPS High Side	N	No	No		30	12	13.4	10.7	3.7	2.4	11.5	13.5			2.5	1210	330	22	2.7	10	21
AO4476	New		SO-8	Single	SMPS	N	No	No		30	20	15	12	3.7	2.4	10.5	17			2.5	1000	100	8.5	4.8	8	20
AO4480	Full Production		SO-8	single	Display	N	Yes	No		40	20	14	11	3.1	2	11.5	15.5			3	1600	100	10.5	4.8	3.5	12.2
AO4490	New		SO-8	single	Load Switch	N	Yes	No		30	20	16	13	2.8	1.8	7.2	10			2.5	1800	387	236	8.7	2.8	27
AO4600	Not for new designs	AO4622	SO-8	Complementary	Inverter	N	No	No		30	12	6.9	5.6	2	1.44	27	32	50		1.4	858	80	9.6	3	5.7	37
						P	No	No			12	-5	-4.2	2	1.44	45	64	120		-1.4	952	77	9.5	3.1	12	17
AO4601	oduction		SO-8	Complementary	Load Switch	N	No	No			12	4.7	4	2	1.44	55	70	110		1.4	396	41	0.6	4.56	3.3	

ALPHA & OMEGA SEMICONDUCTOR

MOSFET Selector Guide - All Products

Part Number	Status	Replacement Part	Package	Configuration	Popular Application	Type	ESD Diode	Schottky Diode	Schottky Type	V_{DS} (V)	V_{GS} (±V)	I_{DS} (A) 25°C	I_{DS} (A) 70°C	P_D (W) 25°C	P_D (W) 70°C	$R_{DS(on)}$ (mΩ max) at V_{GS} = 10V	$R_{DS(on)}$ (mΩ max) at V_{GS} = 4.5V	$R_{DS(on)}$ (mΩ max) at V_{GS} = 2.5V	$R_{DS(on)}$ (mΩ max) at V_{GS} = 1.8V	$V_{GS(th)}$ (max V)	C_{iss} (pF)	C_{rss} (pF)	Q_g (nC)	Q_{gd} (nC)	$T_{d(on)}$ (ns)	$T_{d(off)}$ (ns)
						P	No	No		-30	25	-8	-6.9	2	1.44	19				-3	2078	302	*39	11.4	12.7	25.2
AO4604	Not for new designs	AO4619	SO-8	Complementary	Inverter	N	No	No		30	20	6.9	5.8	2	1.44	28	42			3	680	77	6.74	3.2	4.6	20.6
						P	No	No		-30	20	-5	-4.2	2	1.44	52	87			-3	700	75	7.6	3.8	8.3	29
AO4606	Not for new designs	AO4620	SO-8	Complementary	Inverter	N	No	No		30	20	6.9	5.8	2	1.44	28	42			3	680	77	6.74	3.2	4.6	20.6
						P	No	No		-30	20	-6	-5	2	1.44	35	58			-2.4	920	122	9.6	4.5	7.7	20.2
AO4607	Full Production		SO-8	Complementary	Inverter	N	No	Yes	1A	30	20	6.9	5.8	2	1.28	28	42			3	680	77	6.74	3.2	4.6	20.6
						P	No	No		-30	20	-6	-5	2	1.28	35	58			-2.4	920	122	9.6	4.5	7.7	20.2
AO4608	Not for new designs	AO4622	SO-8	Complementary	Inverter	N	No	No		30	20	8.5	6.6	2	1.28	18	28			3	1040	110	9.36	4.2	5.2	17.3
						P	No	No		-30	12	-3	-2.4	2	1.28	130	180	260		-1.4	409	42	4.4	1.32	5.3	31.5
AO4611	Full Production		SO-8	Complementary	Inverter	N	No	No		60	20	6.3	5	2	1.28	25	30			3	1920	116	24.2	14.4	7.6	28.5
						P	No	No		-60	20	-4.9	-3.9	2	1.28	42	52			-3	2417	120	22.8	9.6	9.8	44
AO4612	Full Production		SO-8	Complementary	Inverter	N	No	No		60	20	4.5	3.6	2	1.28	56	77			3	450	25	4.3	2.2	4.7	15.7
						P	No	No		-60	20	-3.2	-2.6	2	1.28	105	135			-3	930	35	8	3.2	8	31.5
AO4613	Full Production		SO-8	Complementary	Inverter	N	Yes	No		30	20	7.2	6.1	2	1.44	24	40			3	522	75	5.3	4	4.7	16.7
						P	Yes	No		-30	20	-6.1	-5.1	2	1.44	37	60			-3	1040	134	8.7	5	9	22.7
AO4614	Not for new designs	AO4614A	SO-8	Complementary	Inverter	N	No	No		40	20	6	5	2	1.28	31	45			3	404	37	4.2	2.3	4.2	15.6
						P	No	No		-40	20	-5	-4	2	1.28	45	63			-3	657	63	6.8	3.9	7.5	26
AO4614A	New		SO-8	Complementary	Inverter	N	No	No		40	20	6	5	2	1.28	31	45			3	404	37	4.2	2.3	4.2	15.6
						P	No	No		-40	20	-5	-4	2	1.28	45	63			-3	657	63	6.8	3.9	7.5	26
AO4615	Full Production		SO-8	Complementary	Inverter	N	Yes	No		30	20	7.2	6.1	2	1.44	24	40			3	522	75	5.3	4	4.7	16.7
						P	Yes + 1M	No		-30	20	-5.7	-4.6	2	1.44	39	62			-3	1035	99	8.9	4.1	8	19.5
AO4616	Full Production		SO-8	Complementary	Inverter	N	No	No		30	20	8.5	6.5	2	1.28	20	28			3	1040	110	9.36	4.2	5.2	17.3
						P	No	No		-30	20	-7.1	-5.6	2	1.28	25	40			-2.7	1573	211	16.1	4.4	9.5	44.2
AO4617	Full Production		SO-8	Complementary	Inverter	N	Yes	No		40	20	6	5	2	1.28	32	45			3	506	38	4.1	2.7	4.8	17
						P	Yes	No		-40	20	-5	-4	2	1.28	48	75			-3	1006	77	8.9	4.6	9.7	35.5
AO4619	New		SO-8	Complementary	Inverter	N	No	No		30	20	7.4	6	2	1.3	24	30			3	821	85	5.7	3	4.5	15.1
						P	No	No		-30	20	-5.2	-4.2	2	1.3	48	74			-3	980	80	6.4	4	7.7	20
AO4620	New		SO-8	Complementary	Inverter	N	No	No		30	20	7.2	5.8	2	1.44	24	36			3	600	87	5.7	3	4.5	15.1
						P	No	No		-30	20	-5.3	-4.5	2	1.44	38	60			-3	980	115	9.6	4.8	7.7	20
AO4622	New		SO-8	Complementary	Inverter	N	No	No		20	16	7.3	5.2	2	1.44	23	30	84		2	900	105	7.2	2.8	4.5	18.7
						P	No	No		-20	12	-5	-4.2	2	1.44		53	87		-1.3	800	103	7.4	2.9	4.4	44
AO4624	New		SO-8	Complementary	Inverter	N	No	No		30	20	8.9	5.8	2	1.44	28	42			3	737	73	6.74	3.2	4.6	20.6
						P	No	No		-30	20	-8	-5	2	1.44	35	58			-2.4	920	122	9.6	4.5	7.7	20.2
AO4701	Full Production		SO-8	Single	SMPS Low Side	P	No	Yes	3A	-30	12	-5	-4.2	2	1.44	49	64	120		-1.3	952	77	9.5	3.1	12	37
AO4702	Not for new designs	AO4712	SO-8	Single	SMPS Low Side	N	No	Yes	1A	30	20	11	9.3	3	2	16	25			3	1040	121	9.8	3.5	4.5	17.4
AO4704	Not for new designs	AO4710	SO-8	Single	SMPS Low Side	N	No	Yes	1A	30	12	13	10.4	3.1	2	11.5	13			2	3058	168	30.5	8.6	6.2	52
AO4706	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	10.5	13.2	3.1	2	6.8	8.2			2.4	4000	217	27	11	9	37
AO4708	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	15	12	3.1	2	8.7	10.5			2.4	2800	145	19	8	7	31
AO4710	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	12.7	10	3.1	2	11.8	14.2			2.3	1980	111	15	6	5.5	27
AO4712	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	11.2	9.1	3.1	2	14.5	18			2.4	1450	92	12	4.2	5.5	24
AO4714	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	20	16	3	2	4.7	6.7			2.2	3760	314	29	12	9.5	39
AO4716	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	16.5	13	3.1	2	7	10			2	2154	186	17.6	7.6	6.6	25.2
AO4718	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	15	12	3.1	2	9	14			2.2	1620	102	12	5.6	6.3	21.6
AO4720	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	13	10.5	3.1	2	11	17.5			2	1287	118	10.4	3.6	5.2	21.5
AO4722	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	11.6	9.3	3.1	2	14	22			2.5	903	91	7.8	3.5	5	17.6
AO4724	New		SO-8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	10.5	8.5	3.1	2	17.5	29			2	890	81	6.1	2.7	4.6	17
AO4800	Not for new designs	AO4800B	SO-8	Dual	General Purpose	N	No	No		30	12	6.9	5.8	2	1.44	27	32	50		1.4	858	80	9.6	3	3.2	26.3
AO4800B	New		SO-8	Dual	General Purpose	N	No	No		30	12	6.9	5.6	1.9	1.2	27	32	50		1.5	900	65	10	3.75	3.2	21.6
AO4801	Not for new designs	AO4801A	SO-8	Dual	General Purpose	P	No	No		-30	12	-5	-4.2	2	1.44	49	64	120		-1.3	952	77	9.5	3.1	12	37
AO4801A	New		SO-8	Dual	General Purpose	P	No	No		-30	12	-5.6	-4.5	2	1.3	42	52	75		-1.3	930	81	9.3	3.7	5.2	42
AO4803	Not for new designs	AO4803A	SO-8	Dual	General Purpose	P	No	No		-30	20	-5	-4.2	2	1.4	52	87			-3	700	75	14.7	3.8	8.3	29
AO4803A	New		SO-8	Dual	General Purpose	P	No	No		-30	20	-5	-4	2	1.3	46	74			-2.5	668	92	8.4	4	7.7	20
AO4805	Full Production	AO4817	SO-8	Dual	Load Switch	P	No	No		-30	25	-8	-6.9	2	1.44	19				-3	2078	302	*39	11.4	12.7	25.2
AO4806	Full Production	AO4806A	SO-8	Dual	General Purpose	N	Yes	No		20	12	9.4	7.5	2	1.28	14	18	22	30	1	1810	200	17.9	4.7	3.3	44
AO4807	Full Production		SO-8	Dual	General Purpose	P	No	No		-30	20	-6	-5	2	1.44	35	58			-2.4	920	122	9.6	4.6	7.7	20.2
AO4812	Not for new designs	AO4842	SO-8	Dual	General Purpose	N	No	No		30	20	6.9	5.8	2	1.44	28	42			3	680	77	6.74	3.2	4.6	20.6
AO4813	Full Production		SO-8	Dual	General Purpose	P	No	No		-30	20	-7.1	-5.6	2	1.28	25	40			-2.7	1573	211	16.1	4.4	9.5	44.2
AO4815	Full Production		SO-8	Dual	Load Switch	P	Yes	No		-30	25	-8	-6.6	2	1.44	20				-3	2330	320	*41	12	13	51
AO4817	Full Production		SO-8	Dual	Load Switch	P	Yes	No		-30	25	-8	-6.9	2	1.44	21				-3	1760	255	*30	8	12.5	40
AO4818	Not for new designs	AO4818B	SO-8	Dual	General Purpose	N	No	No		30	20	8.5	6.6	2	1.28	19	28			3	1040	110	9.36	4.2	5.2	17.3
AO4818B	New		SO-8	Dual	General Purpose	N	No	No		30	20	8.5	6.6	2	1.28	16	26			3	955	112	9	4.7	5	19
AO4821	Full Production		SO-8	Dual	Load Switch	P	Yes	No		-12	8	-8	-6.7	2	1.28		18	22	29	-1	3960	757	37	11	15	158
AO4822	Not for new designs	AO4822A	SO-8	Dual	General Purpose	N	No	No		30	20	8.5	6.6	2	1.28	16	26			3	1040	110	9.36	4.2	5.2	17.3
AO4822A	New		SO-8	Dual	General Purpose	N	No	No		30	20	8.5	6.6	2	1.28	16	26			3	955	112	9	4.7	5	19
AO4824	Not for new designs	AO4924	SO-8	Asymmetric	SMPS	N	No	No		30	20	8.5	6.6	2	1.28	17	27			3	1040	110	9.36	4.2	5.2	17.3
						N	No	No		30	12	9.8	7.8	2	1.28	13	15			2	3656	188	30.5	8.5	5.5	52.4
AO4826	Full Production		SO-8	Dual	General Purpose	N	No	No		60	20	6.3	5	2	1.28	25	30			3	1920	116	24.2	14.4	7.6	28.5
AO4828	Full Production		SO-8	Dual	General Purpose	N	No	No		60	20	4.5	3.6	2	1.28	56	77			3	450	25	4.3	2.2	4.7	15.7
AO4840	Full Production		SO-8	Dual	General Purpose	N	Yes	No		40	20	6	5	2	1.28	31	45			3	404	37	4.2	2.3	4.2	15.6
AO4842	Full Production		SO-8	Dual	General Purpose	N	Yes	No		30	20	7.5	6.4	2	1.44	22	35			3	621	89	6	3	4.5	15.1
AO4850	New		SO-8	Dual	Inverter	N	No	No		75	25	3.1	2.4	2	1.3	130	165			3	290	24	*5.14	1.18	4	14.4
AO4900	Not for new designs	AO4924	SO-8	Dual	SMPS	N	No	Yes	1A	30	12	8.9	5.8	2	1.44	27	32	50		1.4	846	67	9.6	3	3.2	26.3
AO4908	new designs	AO4932	SO-8	Dual	SMPS	N	No	Yes	1A	30	12	7	6	2	1.44	27	32	50		1.4	846	67	9.6	3	3.2	26.3
AO4912	new designs	AO4932	SO-8	Asymmetric	SMPS	N	No	Yes			12	7	6.4	2	1.28	26	31			2	590	40	6.04	2.56	3.7	
						N	No	Yes	1A		20	8.5	6.8	2	1.28	17	25			3	970	110	9.36	4.2	5.2	
AO4914	ew designs	AO4924	SO-8	Dual	SMPS	N	No	Yes	1A		0	8.5	6.6	2	1.28	16	28			3	971	110	9.36	4.2	5.2	
AO4916	ew designs	AO4932	SO-8	Dual	SMPS	N	No	Yes	1A		0	8.5	6.6	2	1.28	17	27			3	971	110	9.36	4.2	5.2	

EXHIBIT 1

ALPHA & OMEGA SEMICONDUCTOR

MOSFET Selector Guide - All Products

Part Number	Status	Replacement Part	Package	Configuration	Typical Application	Type	ESD Diode	Schottky Diode	Schottky Type	V_{DS} (V)	V_{GS} (±V)	I_D (A) 25°C	I_D (A) 70°C	P_D (W) 25°C	P_D (W) 70°C	$R_{DS(on)}$ (mΩ max) at V_{GS} = 10V	4.5V	2.5V	1.8V	$V_{GS(th)}$ (max V)	C_{iss} (pF)	C_{oss} (pF)	C_{rss} (pF)	Q_g (nC)	Q_{gd} (nC)	$T_{d(on)}$ (ns)	$T_{d(off)}$ (ns)
AO4918	New		SO-8	Asymmetric	SMPS	N	No			30	20	8.3	6.7	2	1.28	18	27			3	1040	110	9.38	4.2	5.2	17.3	
						N	No	Yes	SRFET	30	12	9.3	7.4	2	1.28	14.5	18			2	3740	180	30.5	6.5	6	94.5	
AO4922	New		SO-8	Asymmetric	SMPS	N	No			30	12	7.3	5.9	2	1.3	24	29	48		1.5	900	65	10	3.75	3.2	21.5	
						N	No	Yes	SRFET	30	12	9	7.2	2	1.3	15.8	18.5			2.4	1980	111	15	6	5.5	27	
AO4924	New		SO-8	Asymmetric	SMPS	N	No			30	12	7.3	5.9	2	1.3	24	29			1.5	900	65	10	3.75	3.2	21.5	
						N	No	Yes	SRFET	30	12	9	7.2	2	1.3	15.8	19.5			2.4	1450	92	12	4.2	5.5	24	
AO4926	New		SO-8	Asymmetric	SMPS	N	No			30	12	7.3	5.9	2	1.3	24	29	48		1.5	900	65	10	3.75	3.2	21.5	
						N	No	Yes	SRFET	30	12	9.5	7.6	2	1.3	13.8	16			2.4	1980	111	15	6	5.5	27	
AO4928	New		SO-8	Asymmetric	SMPS	N	No			30	12	7.3	5.9	2	1.3	24	29	48		1.5	900	65	10	3.75	3.2	21.5	
						N	No	Yes	SRFET	30	12	9	7.2	2	1.3	16	19.5			2.4	1450	92	12	4.2	5.5	24	
AO4930	New		SO-8	Asymmetric	SMPS	N	No			30	20	9	7.2	2	1.3	15.8	23			2.3	955	112	9	4.7	5	19	
						N	No	Yes	SRFET	30	12	9.5	7.6	2	1.3	13.5	16			2.4	1980	111	15	6	5.5	27	
AO4932	New		SO-8	Asymmetric	SMPS	N	No			30	20	9	7.2	2	1.3	15.8	23			2.3	955	112	9	4.7	5	19	
						N	No	Yes	SRFET	30	12	9	7.2	2	1.3	15.8	19.8			2.4	1450	92	12	4.2	5.5	24	
AO4936	New		SO-8	Asymmetric	SMPS	N	No			30	20	8.5	6.8	2	1.3	18	26			2.3	955	112	9	4.7	5	19	
						N	No	Yes	SRFET	30	20	8.8	7.1	2	1.3	16	22			2	1267	118	10.4	3.6	5.2	21.2	
AO4938	New		SO-8	Asymmetric	SMPS	N	No			30	20	9	7.2	2	1.3	16	26			2.3	955	112	9	4.7	5	19	
						N	No	Yes	SRFET	30	20	9.6	7.7	2	1.3	13.5	19.5			2	1267	118	10.4	3.6	5.2	21.2	
AO4940	New		SO-8	Asymmetric	SMPS	N	No			30	20	7.5	6	2	1.3	23	38			2.5	621	85	5.7	3	4.5	15.1	
						N	No	Yes	SRFET	30	20	9.1	7.3	2	1.3	15	23			2.5	903	91	7.8	3.9	5	17.6	
AO4944	New		SO-8	Dual	SMPS	N	No	Yes		30	12	8.8	6.9	2	1.3	16	20			2.4	1450	92	12	4.2	5.5	24	
AO4946	New		SO-8	Dual	SMPS	N	No	Yes		30	12	8.6	6.9	2	1.3	18	20			2.4	1450	92	12	4.2	5.5	24	
AO4948	New		SO-8	Asymmetric	SMPS	N	No			30	20	8.5	6.8	2	1.3	18	28			2.3	955	112	9	4.7	5	19	
						N	No	Yes	SRFET	30	20	8.8	7.1	2	1.3	16	22			2	1267	118	10.4	3.6	5.2	21.2	
AO5800	New		SC89-6	Dual	Load Switch	P	Yes	No		60	20	0.4	0.3	0.4	0.24	1600	1900			2.5	41	6	1		35.2	261	
AO5803	New		SC89-6	Dual	Load Switch	P	Yes	No		-20	8	-0.6	-0.4	0.4	0.24		800	1000	1250	-0.9	72	9	0.8		60.5	512	
AO6400	Full Production		TSOP-6	Single	General Purpose	N	No	No		30	12	6.9	5.8	2	1.44	28	33	52		1.4	823	77	9.6	3	5.5	37	
AO6401	Full Production	AO6401A	TSOP-6	Single	General Purpose	P	No	No		-30	12	-5	-4.2	2	1.44	49	64	119		-1.5	940	75	9.5	2.9	6	40	
AO6402	Not for new designs	AO6402A	TSOP-6	Single	General Purpose	N	No	No		30	20	6.9	5.8	2	1.44	28	42			3	680	77	8.74	3.2	4.6	20.6	
AO6402A	New		TSOP-6	Single	General Purpose	N	No	No		30	20	7	5.6	2	1.28	27	40			2.5	821	85	5.7	3	4.5	15.1	
AO6403	Full Production		TSOP-6	Single	General Purpose	P	No	No		-30	20	-6	-5	2	1.44	35	58			-2.4	920	122	9.6	4.5	7.7	20.2	
AO6404	Full Production		TSOP-6	Single	Load Switch	N	No	No		20	12	8.6	6.8	2	1.28	17	18	24	33	1	1810	200	17.9	4.7	2.5	49	
AO6405	Full Production		TSOP-6	Single	General Purpose	P	No	No		-30	20	-5	-4.2	2	1.4	52	87			-3	700	75	7.6	3.8	8.3	29	
AO6408	Full Production		TSOP-6	Single	General Purpose	N	Yes	No		20	12	8.8	7	2	1.28	18	20	25	32	1	1810	200	17.9	4.7	3.3	44	
AO6409	Full Production		TSOP-6	Single	Load Switch	P	Yes	No		-20	8	-5	-4.2	2	1.28		45	56	75	-1	1450	160	17.2	4.5	9	91	
AO6414	Full Production		TSOP-6	Single	General Purpose	N	No	No		55	12	2.3	1.8	1.56	1.1		160	200		2	214	12.6	2.6	0.8	2.3	16.5	
AO6415	Full Production		TSOP-6	Single	Load Switch	P	Yes	No		-20	12	-3.3	-2.7	1.25	0.8	75	100	150		-1.4	512	62	4.9	1.2	1.1	34	
AO6420	Full Production		TSOP-6	Single	General Purpose	N	No	No		60	20	4.2	3.4	2	1.28	60	75			3	450	25	4.3	2.2	5.1	15.8	
AO6601	Full Production		TSOP-6	Complementary	Inverter	N	No	No		30	12	3.4	2.7	1.15	0.73	80	76	115		1.4	390	41	4.34	0.6	4	22	
						P	No	No		-30	12	-2.3	-1.8	1.15	0.73	135	185	265		-1.4	408	42	4.8	0.72	13	28	
AO6602	Full Production		TSOP-6	Complementary	Inverter	N	No	No		30	20	3.1	2.4	1.15	0.73	75	115			3	200	20	3.1	1.6	3.3	13.2	
						P	No	No		-30	20	-2.7	-2.1	1.15	0.73	100	180			-3	260	44	3	1.6	7	15	
AO6604	Full Production		TSOP-6	Complementary	Inverter	N	No	No		20	8	3.4	2.7	1.15	0.73		60	75	100	1	436	44	6.2	0.5	5.5	40	
						P	No	No		-20	8	-2.5	-2	1.15	0.73		110	140	200	-1	540	49	6.1	1.6	10	44	
AO6605	Full Production		TSOP-6	Complementary	Load Switch	N	No	No		20	8	1.7	1.4	1.15	0.73		200	270	400	0.8	101	14	1.6	0.4	3.2	15.5	
						P	No	No		-20	8	-2.5	-2	1.15	0.73		97	130	190	-1	540	49	6.1	1.6	12	49	
AO6700	Full Production		TSOP-6	Single	SMPS	N	No	Yes	1A	20	8	4.1	3.3	1.39	0.89		50	65	95	1	449	51.6	5.8	1.3	4.5	32.7	
AO6701	Full Production		TSOP-6	Single	SMPS	P	No	Yes	1A	-20	12	-2.3	-1.8	1.15	0.7	135	185	265		-1.4	409	42	4.9	1.6	6.9	36.5	
AO6702	Full Production		TSOP-6	Single	SMPS	N	No	Yes	1A	20	8	3.8	3	1.15	0.7		50	65	95	1	449	51.6	5.8	1.3	4.5	32.7	
AO6704	Full Production		TSOP-6	Single	SMPS	N	No	Yes	1A	30	12	3.6	2.9	1.39	0.89	85	75	160		1.8	226	29	3	0.55	2.8	14.5	
AO6706	Full Production		TSOP-6	Single	SMPS	N	No	Yes	1A	30	12	3.3	2.6	1.15	0.7	65	75	160		1.6	226	29	3	0.55	2.8	14.5	
AO6800	Full Production		TSOP-6	Dual	General Purpose	N	No	No		30	12	3.4	2.7	1.15	0.73	80	75	115		1.4	390	41	4.96	1.72	6.6	35.2	
AO6801	Full Production		TSOP-6	Dual	General Purpose	P	No	No		-30	12	-2.3	-1.8	1.15	0.73	135	185	265		-1.4	409	42	4.9	1.6	6.9	36.5	
AO6802	Full Production		TSOP-6	Dual	General Purpose	N	No	No		30	20	3.1	2.4	1.15	0.73	75	115			3	200	20	3.1	1.6	3.3	13.2	
AO7400	Full Production		SC70-3	Single	General Purpose	N	No	No		30	12	1.7	1.3	0.35	0.22	85	100	140		1.4	390	41	4.82	1.58	2.9	22	
AO7401	Full Production		SC70-3	Single	General Purpose	P	No	No		-30	12	-1.2	-1	0.35	0.22	150	200	280		-1.4	409	42	5.06	1.58	6.2	41.2	
AO7402	Full Production		SC70-3	Single	General Purpose	N	No	No		20	8	1.6	1.2	0.35	0.22		90	105	130	0.8	458	54	6.05	1.45	7.3	40	
AO7403	Full Production		SC70-3	Single	General Purpose	P	Yes	No		-20	8	-0.7	-0.5	0.35	0.22		470	625	900	-0.9	114	14	1.44	0.35	6.5	18.2	
AO7404	Full Production		SC70-3	Single	General Purpose	N	Yes	No		20	8	1	0.75	0.35	0.22		225	290	425	0.8	101	14	1.57	0.36	3.2	15.5	
AO7405	Full Production		SC70-6	Single	General Purpose	P	No	No		-30	12	-1.6	-1.3	0.625	0.4	150	200	280		-1.4	409	42	5.06	1.58	6.2	41.2	
AO7407	Full Production		SC70-3	Single	General Purpose	P	No	No		-20	8	-1.2	-1	0.35	0.22		135	170	220	-1	540	49	6.2	1.44	12	74	
AO7408	Full Production		SC70-6	Single	General Purpose	N	No	No		20	8	2.2	1.75	0.625	0.4		70	85	110	0.8	458	54	6.05	1.45	7.3	40	
AO7410	Full Production		SC70-3	Single	General Purpose	N	No	No		30	12	1.6	1.3	0.35	0.22	90	100	175		1.8	226	29	3	1.2	2.8	17.4	
AO7411	Full Production		SC70-6	Single	General Purpose	P	No	No		-20	8	-1.8	-1.5	0.625	0.4		120	150	200	-0.8	524	73	6.24	1.84	10.5	54.5	
AO7412	Full Production		SC70-6	Single	General Purpose	N	No	No		30	12	2.1	1.7	0.625	0.4	90	100	160		1.8	226	29	3	1.2	2.8	17.4	
AO7413	Full Production		SC70-3	Single	General Purpose	P	Yes	No		-20	12	-1.4	-1.2	0.35	0.22	113	135	180		-1.4	512	62	4.9	3.7	11	34	
AO7416	Full Production		SC70-6	Single	General Purpose	P	Yes	No		-20	12	-2	-1.6	0.625	0.4	100	125	170		-1.4	512	62	4.9	3.7	11	34	
AO7600	Full Production		SC70-6	Complementary	Inverter	N	No	No		20	8	0.9	0.7	0.3	0.19		300	360	450	0.9	101	14	1.57	0.36	3.2	15.5	
						P	No	No		-20	8	-0.6	-0.48	0.3	0.19		550	700	950	-0.9	114	14	1.44	0.35	6.5	18.2	
AO7800	Full Production		SC70-6	Dual	General Purpose	N	Yes	No		20	8	0.8	0.7	0.3	0.19		235	310	415	0.8	101	14	1.57	0.36	3.2	15.5	
AO7801	Full Production		SC70-6	Dual	General Purpose	P	No	No		-20	8	-0.6	-0.48	0.3	0.19		520	700	950	-0.9	114	14	1.44	0.35	6.5	18.2	
AO8403	Full Production		TSSOP-8	Single	Load Switch	P	Yes	No		-20	8	-4	-3.5	1.5	1		42	52	70	-1	954	77	9.4	3	6.5	38.2	
AO8701	roduction		TSSOP-8	Single	Load Switch	P	No	Yes	1A		12	-4.2	-3.5	1.4	1	50	65	120		-1.3	1450	160	17.2	4.5	9.5	4	
AO8801	roduction		TSSOP-8	Dual	Load Switch	P	Yes	No			8	-4.7	-3.7	1.4	0.9		42	53	70	-1	1450	160	17.2	4.5	9.5		
AO8803	oduction		TSSOP-8	Dual	Load Switch	P	Yes	No			8	-7	-5.8	1.4	0.9		18	22	29	-1	3900	767	36.8	10	15		

ALPHA & OMEGA SEMICONDUCTOR

MOSFET Selector Guide - All Products

Part Number	Status	Replacement Part	Package	Configuration	Typical Application	N/P	ESD Diode	Schottky Diode	Schottky Type	V_{DS} (V)	V_{GS} (±V)	I_{DM} (A) 25°C	I_{DM} (A) 70°C	P_D (W) 25°C	P_D (W) 70°C	$R_{DS(ON)}$ (mΩ max) at V_{GS} = 10V	4.5V	2.5V	1.8V	$V_{GS(th)}$ (max V)	C_{iss} (pF)	C_{rss} (pF)	Q_g (nC)	Q_{gd} (nC)	$T_{d(on)}$ (ns)	$T_{d(off)}$ (ns)
AO8804	Not for new designs		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		20	12	6	6.3	1.5	1.08	13	14	19	27	1	1810	200	19.8	5	3.3	44
AO8806	Last Time Buy		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		20	8	6.4	5.4	1.5	1.08		25	30	40	1	940	133	15	4	6.5	56.5
AO8808A	Full Production		TSSOP-8	Dual	Battery Protection	N	Yes	No		20	12	8	6.3	1.4	1	14	15	20	28	1	1160	146	16	3.8	6.2	51.7
AO8810	Full Production		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		20	8	7	5.7	1.5	1		20	24	32	1	1810	200	17.8	4.7	2.5	49
AO8814	Not for new designs		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		20	12	7.5	6	1.5	0.96	16	18	24	34	1	1390	150	15.4	4	6.2	40.5
AO8816	Not for new designs		TSSOP-8	Common Drain	Battery Protection	N	No	No		30	12	8	6	1.5	1	15	17	23		1.4	800	120	12	3	7	29
AO8818	Not for new designs		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		30	12	7	5.5	1.5	0.96	18	20	27		1	630	137	9.3	3.8	5.7	31.5
AO8820	Full Production		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		20	12	7	5.5	1.5	0.96	21	24	32	50	1	1130	125	14	5.5	5.7	30
AO8822	Full Production		TSSOP-8	Common Drain	Battery Protection	N	No	No		20	12	7	5.7	1.5	0.96	21	24	32	50	1	1000	90	14	4.6	5.7	30
AO8830	New		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		20	12	6	4.8	1.5	0.94	27	30	41	55	1	290	40	5.2	1.9	260	2550
AO8842	New		TSSOP-8	Common Drain	Battery Protection	N	Yes	No		20	12	7	5.5	1.5	0.96	19.5	21	28.5	43	1	1020	157	12.4	3.5	0.96	7
AO8828B	Full Production		SO-8	Dual	Battery Protection	N	No	No		20	12	7.6	6.1	2	1.8	23	26	34	52	1	630	137	8.8	3.7	5.5	25
AOB403	Obsolete		TO-263	Single	Inverter	P	No	No		-60	20	-30	-20	83	42	44	55			-3	2977	153	20.8	10	13.7	51
AOB405	Obsolete		TO-263	Single	Inverter	P	No	No		-40	20	-12	-12	50	25	48	72			-3	667	83	7	4.1	8	24
AOB414	Obsolete		TO-263	Single	SMPS Low Side	N	No	No		30	12	110	80	100	50	4.2	4.8			1.5	9130	387	72.4	18.4	15	100.5
AOB416	Obsolete		TO-263	Single	SMPS Low Side	N	No	No		30	20	110	78	100	50	4.5	6.5			2.4	6060	355	46.4	16	15.5	52.5
AOB418	Obsolete		TO-263	Single	SMPS High Side	N	No	No		30	12	110	68	100	50	6	7.2			2	2100	185	19.6	8	5.9	34
AOB420	Obsolete		TO-263	Single	SMPS High Side	N	No	No		30	20	110	65	100	50	8.5	10			2.5	1320	154	13.3	6.7	7.7	22.7
AOB428	Obsolete		TO-263	Single	General Purpose	N	No	No		105	25	40	28	100	50	28				4	2038	65	*36.5	13.4	12.7	31.5
AOB430	Obsolete		TO-263	Single	General Purpose	N	No	No		60	20	12	12	50	25	63	85			3	450	27	3.8	1.9	4.2	10
AOB432	Obsolete		TO-263	Single	General Purpose	N	No	No		40	20	12	11	47	23	32	50			3	404	37	4.5	2.8	4	17
AOB434	Obsolete		TO-263	Single	SMPS High Side	N	No	No		25	20	55	55	50	25	8.5	15			3	1230	190	12.7	7.4	6.5	18
AOB436	Obsolete		TO-263	Single	SMPS Low Side	N	No	No		25	20	55	55	50	25	7	11			3	1650	275	16.8	8.5	7.5	25
AOD400	Not for new designs	AOD478	TO-252	Single	SMPS	N	No	No		30	12	10	10	20	10	30	36	52		1.4	857	71	9.7	3.1	3.5	25
AOD402	Not for new designs	AOD476	TO-252	Single	SMPS	N	No	No		30	25	18	12	60	30	18	44			3	769	131	*15.9	4.92	6.2	16
AOD403	Full Production		TO-252	Single	Load Switch	P	No	No		-30	25	-85	-65	100	50	7.6				-3.5	4360	762	*93.2	29.2	18	51
AOD404	Not for new designs	AOD494	TO-252	Single	SMPS High Side	N	No	No		30	12	85	65	100	50	7	8			2	2100	165	19.7	7.9	5.9	36.2
AOD405	Last Time Buy 6/1/07		TO-252	Single	General Purpose	P	No	No		-30	20	-18	-18	60	30	32	80			-2.4	920	122	9.7	5.4	5	20
AOD406	Not for new designs	AOD4132	TO-252	Single	SMPS Low Side	N	No	No		30	12	85	75	100	50	5	5.7			1.5	9130	387	72.4	16.8	14.7	105.5
AOD407	Full Production		TO-252	Single	General Purpose	P	No	No		-60	20	-12	-10	50	25	115	150			-3	987	46	7.4	3.5	5	25
AOD408	Last Time Buy 6/1/07		TO-252	Single	SMPS	N	No	No		30	20	18	18	60	30	18	27			2.5	1040	110	9.8	3.5	4.5	11.4
AOD409	Full Production		TO-252	Single	General Purpose	P	No	No		-60	20	-20	-18	80	30	40	55			-2.4	2977	153	22.2	10	12	30
AOD410	Not for new designs		TO-252	Single	General Purpose	N	No	No		30	20	8	6	25	12.5	65	105			3	288	39	3.34	1.78	3.7	15.8
AOD4100	Full Production		TO-252	Single	SMPS High Side	N	No	No		25	30	50	29	50	25	12				4	1100	200	*17	6.8	9.5	11.5
AOD4102	Full Production		TO-252	Single	SMPS	N	No	No		30	20	12	12	21	10	37	64			3	360	30	3.2	2.2	4.5	17.8
AOD4104	Full Production		TO-252	Single	SMPS Low Side	N	No	No		25	30	75	75	100	50	5.4				4	2100	400	*40	14	12	15
AOD4106	Full Production		TO-252	Single	SMPS Low Side	N	No	No		25	30	50	50	75	38	8.1				4	1561	323	*22.5	10	12	17
AOD4110	Full Production		TO-252	Single	SMPS Low Side	N	No	No	SRFET	30	20	40	40	63	31	7.2	10.5			2	2154	185	17.8	7.6	6.8	25.2
AOD4112	Full Production		TO-252	Single	SMPS Low Side	N	No	No	SRFET	30	20	20	20	50	25	9.5	14.5			2.5	1620	162	12	5.6	6.3	21.6
AOD4120	Full Production		TO-252	Single	SMPS	N	No	No		20	16	25	23	33.3	16.7	18	25	75		2	900	105	7.2	2.8	4.5	18.7
AOD413	Full Production		TO-252	Single	General Purpose	P	No	No		-40	20	-12	-12	50	25	45	69			-3	657	83	7	4.1	8	24
AOD4132	Full Production		TO-252	Single	SMPS Low Side	N	No	No		30	20	85	63	100	50	4	6			3	3700	390	33	17.6	12	40
AOD414	Not for new designs	AOD472	TO-252	Single	SMPS Low Side	N	No	No		30	20	85	73	100	50	5.2	7			2.4	6060	355	46.4	15.6	15.7	55.5
AOD417	Full Production		TO-252	Single	Inverter	P	No	No		-30	20	-25	-20	50	25	34	55			-3	920	90	8.2	3.6	8	22
AOD420	Last Time Buy 6/1/07	AOD480	TO-252	Single	General Purpose	N	No	No		30	20	10	10	60	30	28	42			3	710	72	7	2.7	5.6	15.6
AOD421	New		TO-252	Single	General Purpose	P	No	No		-20	12	-12.5	-8.9	18.8	9.4	75	95	145		-1.4	512	62	4.6	2.1	5.2	17
AOD422	Full Production		TO-252	Single	General Purpose	N	No	No		20	8	10	10	50	20		22	28	34	1	1180	146	16	3.8	6.2	51.7
AOD434	Last Time Buy 6/1/07		TO-252	Single	General Purpose	N	Yes	No		20	12	18	18	60	30	15	18	21	30	1	1810	200	17.8	4.7	2.5	49
AOD435	Last Time Buy 6/1/07		TO-252	Single	SMPS High Side	N	No	No		30	20	60	43	50	25	7.5	13			3	1520	214	16.2	9.6	7	24.2
AOD438	Last Time Buy 6/1/07		TO-252	Single	SMPS Low Side	N	No	No		30	20	85	63	100	50	3.5	5.5			3	3700	390	33	17.6	12	40
AOD442	Full Production		TO-252	Single	General Purpose	N	No	No		60	20	38	27	60	30	20	25			3	1920	118	24.2	14.4	7.4	28.2
AOD444	Full Production		TO-252	Single	General Purpose	N	No	No		60	20	12	12	20	10	60	85			3	450	27	3.8	1.9	4.2	16
AOD446	Full Production		TO-252	Single	General Purpose	N	No	No		75	25	10	10	20	10	140	165			3	293	20	*5.2	1.34	4.6	14.7
AOD448	Full Production		TO-252	Single	General Purpose	N	No	No		30	20	75	50	50	25	5	9			2.5	2342	320	26	13	9	30
AOD450	Full Production		TO-251	Single	Inverter	N	No	No		200	30	3.8	2.7	25	12.5	700				6	215	7.2	*3.82	1.47	8.3	10.5
AOD452	Full Production		TO-252	Single	SMPS High Side	N	No	No		25	20	55	55	50	25	8.5	14			3	1230	190	13.5	7.8	6.5	22.7
AOD454	Not for new designs	AOD488	TO-252	Single	General Purpose	N	No	No		40	20	12	12	50	25	33	47			3	404	37	4.5	2.6	3.5	13.2
AOD456	Full Production		TO-252	Single	SMPS Low Side	N	No	No		25	20	50	50	50	25	6	10			3	1850	275	15.7	8.2	7.5	30
AOD460	Not for new designs		TO-252	Single	SMPS	N	No	No		25	20	25	25	30	15	14	24			2.5	830	127	7.4	4.3	6	30
AOD464	Full Production		TO-252	Single	General Purpose	N	No	No		105	25	40	28	100	50	28				4	2038	65	*36.5	10	12.7	31.5
AOD466	Not for new designs	AOD484	TO-252	Single	SMPS	N	No	No		25	20	30	25	30	15	14	24			2.5	830	127	7.4	4.3	6	30
AOD472	Full Production		TO-252	Single	SMPS	N	No	No		25	20	50	50	50	25	6	9.5			2.5	2050	280	17	3.5	7.5	27
AOD476	Full Production		TO-252	Single	SMPS	N	No	No		20	16	25	23	33.3	16.7	21	28	79		2	900	105	7.2	2.8	4.5	18.7
AOD480	Full Production		TO-252	Single	General Purpose	N	No	No		30	20	25	21	33	17	23	36			2.5	621	85	5.7	3	4.5	15.1
AOD484	Full Production		TO-252	Single	SMPS	N	No	No		30	20	25	25	50	25	15	23			2.5	938	99	8.4	4.1	5	19
AOD486A	New		TO-252	Single	Inverter	N	No	No		40	20	50	36	50	25	9.8	13			3	1600	100	10.5	4.8	6.5	33
AOD488	Full Production		TO-252	Single	SMPS	N	No	No		40	20	20	15	20	10	26	39			3	404	37	4.5	2.6	3.5	13.2
AOD490	New		TO-252	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	40	40	63	31	6.8	8.3			2.4	4000	217	27	11	9	37
AOD492	New		TO-252	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	85	79	100	50	4.4	6.2			2.2	3760	314	29	12	9.5	34
AOD494	New		TO-252	Single	SMPS	N	No	No		30	12	55	39	83	31	11	13.5			2.5	1210	85	10	2.7	10	21
AOD496	New		TO-252	Single	SMPS	N	No	No		30	20	62	44	62.5	31	9.5	16			2.5	1000	340	18	4.8	5.6	18.5
AOD5	Full Production		TO-252-5L	Complementary	Inverter	N	No	No		60	20	12	12	2	1.3	60	85			3	450	27	3.8	1.9		16
						P	No	No			20	-12	-10	2.5	1.6	115	150			-3	987	46	7.4	3.5		25
AOD6	Production		TO-252-5L	Complementary	Inverter	N	No	No			20	8	8	2	1.3	33	47			3	404	37	4.5	2.6		2

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Part Number	Status	Replacement Part	Package	Configuration	Popular Application	Type	ESD Diode	Schottky Diode	Schottky Type	V_{DS} (V)	V_{GS} (±V)	I_{DS} (A) 25°C	I_{DS} (A) 70°C	P_D (W) 25°C	P_D (W) 70°C	$R_{DS(on)}$ (mΩ max) at V_{GS} 10V	$R_{DS(on)}$ (mΩ max) at V_{GS} 4.5V	$R_{DS(on)}$ (mΩ max) at V_{GS} 2.5V	$R_{DS(on)}$ (mΩ max) at V_{GS} 1.8V	$V_{GS(th)}$ (max V)	C_{iss} (pF)	C_{oss} (pF)	C_{rss} (pF)	Q_g (nC)	Q_{gd} (nC)	$T_{d(on)}$ (ns)	$T_{d(off)}$ (ns)
						P	No	No		-40	20	-8	-8	2.5	1.6	50	70			-3	657	63	14.1	4.1	6	24
AOD608	New		TO-252-4L	Complementary	Inverter	N	No	No		40	20	8	8	4.2	2.7	33	47			3	404	37	4.5	2.6	3.5	13.2
						P	No	No		-40	20	-8	-8	5	3.2	50	70			-3	657	63	7	4.1	6	24
AOD607	New		TO-252-4L	Complementary	Inverter	N	No	No		30	20	12		2.1	1.3	25	34			2.5	1040	110	9.8	3.5	4.5	17.4
						P	No	No		-30	20	-12		2.1	1.3	37	82			-2.4	920	122	9.7	5.4	9	20
AOD609	Full Production		TO-252-4L	Complementary	Inverter	N	Yes	No		40	20	10	10	2	1.3	39	50			3	500	38	4.1	2.6	4.8	17
						P	Yes	No		-40	20	-10	-10	2.5	1.6	51	75			-3	1000	77	8.8	4.5	9.7	35.5
AOL1401	New		Ultra SO8	Single	Battery Protection	P	Yes	No		-30	25	-19	-15	5	3	10				-2.5	3800	350	*81.2	15.4	13.5	97
AOL1408	Not for new designs	AOL1700	Ultra SO8	Single	SMPS Low Side	N	No	No		30	20	27	22	5	3	4	6			3	6060	355	48.4	15.6	15.7	55.5
AOL1412	New		Ultra SO8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	27	21	5	3	3.9	4.8			2.4	6430	352	44	13	17.5	50
AOL1414	Full Production		Ultra SO8	Single	SMPS High Side	N	No	No		30	12	21	17	5	3	6.5	7.5			2	2100	185	19.7	7.3	5.9	30.2
AOL1418	Full Production		Ultra SO8	Single	SMPS High Side	N	No	No		30	20	21	17	5	3	6.5	10.5			3	1320	154	13.5	6.6	7.2	22
AOL1420	Not for new designs	AOL1700	Ultra SO8	Single	SMPS Low Side	N	No	No		30	20	29	23	5	3	3.7	5.5			3	3700	390	33	17.6	12	40
AOL1424	New		Ultra SO8	Single	SMPS	N	Yes	No		30	20	24	19	5	3	5.4	8			2.5	2520	273	25.8	13.2	7	33
AOL1426	New		Ultra SO8	Single	SMPS High Side	N	No	No		30	12	15	12	4	2.6	10.5	13.5			2.5	1210	85	10	2.7	10	21
AOL1428	New		Ultra SO8	Single	SMPS High Side	N	No	No		30	20	16	14	5	3	9.5	16			2.5	1000	100	8.5	4.8	5.6	16.5
AOL1432	New		Ultra SO8	Single	SMPS High Side	N	No	No		25	20	21	17	6	4	8.5	14			3	1430	215	13.5	7.75	6.5	22.7
AOL1436	Not for new designs	AOL1428	Ultra SO8	Single	SMPS Low Side	N	No	No		25	30	20	16	5	3	11.5				4	1100	200	*97	6.8	9.5	11.5
AOL1440	New		Ultra SO8	Single	SMPS Low Side	N	No	No		25	20	25	20	5	3	5.2				4	2100	400	*35	14	12	15
AOL1444	Not for new designs	AOL1700	Ultra SO8	Single	SMPS Low Side	N	No	No		30	20	26	21	5	3	4.3	6.3			1	6070	375	40.4	15.6	15.7	55.5
AOL1446	Not for new designs	AOL1418	Ultra SO8	Single	SMPS High Side	N	No	No		30	20	21	16	5	3	7	11			3	1325	155	13.5	6.6	7.2	22
AOL1454	New		Ultra SO8	Single	Inverter	N	Yes	No		40	20	17	13	5	3.2	9	13			3	1600	100	10.5	4.8	6.5	33
AOL1700	New		Ultra SO8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	26	21	5	3.2	4.2	6			2.2	3760	314	28	12	9.5	34
AOL1702	New		Ultra SO8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	21	17	5	3.2	5.6	7.2			2.4	4000	217	27	11	9	37
AOL1704	New		Ultra SO8	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	18	14	4.3	2.8	7.6	9.8			2.4	2800	145	19	6	7	31
AOL1706	New		Ultra SO8	Single	SMPS Low Side	N	No	Yes	SRFET	30	20	21	16.5	5	3.2	6.2	9.5			2	2154	185	17.8	7.6	6.6	25.2
AON3402	New		DFN 3x3	Single	General Purpose	N	Yes	No		20	12	12	9.6	3	1.9	13	17	26		1	1810	200	17.9	4.7	2.5	4.9
AON3408	New		DFN 3x3	Single	General Purpose	N	No	No		30	12	8.5	7.2	3	1.9	24	29	45		1.5	900	65	10	3.75	3.2	21.5
AON3601	Full Production		DFN 3x3	Complementary	Inverter	N	No	No		30	20	6.6	5.6	2	1.44	29	42			3	680	77	6.74	3.2	4.6	20.6
						P	No	No		-30	20	-5	-4.2	2	1.44	52	72			-3	700	75	7.6	3.8	6.3	29
AON3702	New		DFN 3x3	Single	SMPS Low Side	N	No	Yes	SRFET	30	12	11	8.8	3	1.9	14.5	18			1.9	1450	92	12	4.2	5.5	24
AON3806	New		DFN 3x3	Common Drain	Battery Protection	N	Yes	No		20	12	6.8	5.4	1.9	1.2		26	35		1	815	120	8.5	3	7	29
AON3810	New		DFN 3x3	Common Drain	Battery Protection	N	Yes	No		20	12	7	6	2.2	1.4	24	29	39	55	1	280	35	5.2	1.9	280	2350
AON3812	New		DFN 3x3	Common Drain	Battery Protection	N	Yes	No		30	12	8	5.3	2.2	1.4	27	30	40		1.5	330	10	6.4	2.5	388	2700
AON3814	New		DFN 3x3	Common Drain	Battery Protection	N	Yes	No		20	12	9	5.3	2.4	1.5		17	24	39	1.1	1315	183	13.1	4.6	1000	5600
AON3816	New		DFN 3x3	Common Drain	Battery Protection	N	Yes	No		20	12	4	4	2.4	1.5		22	28		1.1	1315	183	15	4.6	1000	5600
AON4413	New		DFN 2x3	Single	Load Switch	P	No	No		-30	20	4.7	3.7	1.6	1	46	60			2.5	668	92	12.7	4	7.7	20
AON4602	Not for new designs	AON4604	DFN 2x3	Complementary	Inverter	N	No	No		20	8	4.2	3.2	1.4	0.9		42	52	68	1	436	44	6.2	0.5	5.5	40
						P	No	No		-20	8	-3.4	-2.7	1.7	1.1		90	120	160	-1	540	49	6.1	1.6	10	44
AON4604	New		DFN 2x3	Complementary	Inverter	N	No	No		20	8	5.4	4.3	1.9	1.2		42	52	72	1	436	44	6.5	2.1	7	30.5
						P	No	No		-20	8	-3.8	-3	1.9	1.2		90	120	170	-1	540	49	5.9	1.9	11.5	37.5
AON4605	New		DFN 2x3	Complementary	Inverter	N	No	No		30	20	4.5	3.4	1.9	1.2	65	115			2	238	30	3.1	1.6	2.5	13.2
						P	No	No		-30	20	-3.4	-2.7	1.9	1.2	110	180			-3	290	44	3	1.6	2	15
AON4701	Not for new designs		DFN 2x3	Single	Load Switch	P	No	Yes	1A	-20	8	-3.4	-2.7	1.7	1.1		90	120	160	-1	540	49	6.1	1.6	10	44
AON4703	New		DFN 2x3	Single	Load Switch	P	No	Yes	1A	-20	8	-3.4	-2.7	1.7	1.1		90	120	180	-1	540	49	6.1	1.6	10	44
AON5800	Not for new designs		DFN 2x5	Common Drain	Battery Protection	N	Yes	No		20	12	8	6.3	1.6	1	18	20	27	45	1	1330	161	13.1	3.9	6.2	40.5
AON5802	Full Production		DFN 2x5	Common Drain	Battery Protection	N	Yes	No		30	12	7.2	5.6	1.7	1		20	30		1.5	1115	100	10.7	4.3	3.4	27.2
AON5808	Full Production		DFN 2x5	Common Drain	Battery Protection	N	Yes	No		20	12	7.2	5.8	1.7	1	20	23	32	50	1	815	120	8.5	3	7	29
AON5810	Full Production		DFN 2x5	Common Drain	Battery Protection	N	Yes	No		20	12	7.7	6.1	1.6	1		18	25	40	1	1380	178	13.1	3.9	6.2	40.5
AOP604	Not for new designs		PDIP-8	Complementary	Inverter	N	No	Yes	1A	30	20	7.5	6	2.5	1.6	28	43			3	680	77	6.74	3.2	4.6	20.6
						P	No	No		-30	20	-6.6	-5.3	2.5	1.6	35	58			-2.4	920	122	9.6	4.5	7.7	20.2
AOP605	Full Production		PDIP-8	Complementary	Inverter	N	No	No		30	20	7.5	6	2.5	1.6	28	43			3	680	77	6.74	3.2	4.6	20.6
						P	No	No		-30	20	-6.6	-5.3	2.5	1.6	35	58			-2.4	920	122	9.6	4.5	7.7	20.2
AOP606	Full Production		PDIP-8	Complementary	Inverter	N	No	No		60	20	7.9	6.3	3.1	2	25	30			3	1920	116	24.2	14.4	7.4	25.2
						P	No	No		-60	20	-5.1	-4.9	3.1	2	42	52			-2.4	2417	120	22.8	9.6	9.8	44
AOP607	Full Production		PDIP-8	Complementary	Inverter	N	No	No		60	20	4.7	3.8	2.5	1.6	56	77			3	450	25	4.3	2.2	5.1	15.9
						P	No	No		-60	20	-3.4	-2.7	2.5	1.6	105	135			-3	930	35	6	3.2	8	31.5
AOP608	New		PDIP-8	Complementary	Inverter	N	No	No		40	20	6.5	5	2.5	1.6	32	46			3	404	37	4.6	2.5	4.3	15
						P	No	No		-40	20	-5.5	-4.4	2.5	1.6	45	63			-3	657	63	7.1	4.1	7.7	20.5
AOP609	New		PDIP-8	Complementary	Inverter	N	Yes	No		60	20	4.7	3.8	2.5	1.6	60	75			3	474	60	2.5	1.4	5.4	17.2
						P	Yes	No		-60	20	-3.5	-2.9	2.5	1.6	115	140			-3	897	36	3.9	1.7	9	35
AOP610	Full Production		PDIP-8	Complementary	Inverter	N	Yes	No	Yes	30	20	7.7	6.1	2.3	1.45	24	42			3	543	70	5.3	1.9	4.7	30.7
						P	Yes	No		-30	20	-6.2	-4.9	2.3	1.45	39	58			-3	1040	134	8.7	5	5	22.7
AOP611	New		PDIP-8	Complementary	Inverter	N	Yes	No		40	20	6.6	5.3	2.5	1.6	36	47			3	506	36	4.1	2.6	4.8	17
						P	Yes	No		-40	20	-5.5	-4.4	2.5	1.6	52	80			-3	1000	77	8.8	4.6	9.7	35.5
AOP800	Full Production		PDIP-8	Dual	General Purpose	N	No	No		30	20	5	7.3	2.5	1.6	20	28			3	940	119	9	4.7	5	17
AOP802	Full Production		PDIP-8	Dual	General Purpose	N	No	No		60	20	7.9	6.3	3.1	2	25	30			3	1920	116	24.2	14.4	7.4	25.2
AOP804	Full Production		PDIP-8	Dual	General Purpose	N	No	No		60	20	4.7	3.8	3.1	2	50	77			3	450	25	4.3	2.2	5.1	15.9
AOP806	Full Production		PDIP-8	Dual	General Purpose	N	No	No		75	25	3.4	2.7	2.5	1.6	132	168			3	290	24	*5.1	1.2	4	14.4
AOT400	Obsolete		TO-220	Single	SMPS Low Side	N	No	No		75	20	110	110	300	150	4.7				4	8390	450	167	45	29	90
AOT402	Obsolete		TO-220	Single	General Purpose	N	No	No		105	25	110	65	300	150	8.6				4	7700	300	*182	44	30.5	90
AOT	Full Production		TO-220	Single	General Purpose	N	No	No		105	25	40	28	100	50	28				4	2038	85	*38.5	12.4	12.7	31.5
AO	ull Production		TO-220	Single	SMPS Low Side	N	No	No		0	20	110	88	100	50	4	5.5			3	3700	390	30.4	18.8		40
AO	ot for new designs		TO-220	Single	SMPS Low Side	N	No	No		0	20	85	62.5	75	37.5	6	11			2.5	2342	320	26	13		30.7
AO	ull Production		TO-220	Single	General Purpose	N	No	No			30	80	57	115	58	11				4.5	2790	222	*65	23.5		30

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Part Number	Status	Replacement Part	Package	Configuration	Popular Application	Type	ESD Diode	Schottky Diode	Schottky Type	V_{DS} (V)	V_{GS} (±V)	I_{DS} (A)		P_D (W)		$R_{DS(on)}$ (mΩ max) at V_{GS}=				$V_{GS(th)}$ (max V)	C_{iss} (pF)	C_{rss} (pF)	Q_g (nC)	Q_{gd} (nC)	$T_{d(on)}$ (ns)	$T_{d(off)}$ (ns)
												25°C	70°C	25°C	70°C	10V	4.5V	2.5V	1.8V							
AOT430	Full Production		TO-220	Single	General Purpose	N	No	No		75	25	80	78	268	134	11.5				4	4700	180	*114	18	21	70
AOU400	Obsolete		TO-251	Single	General Purpose	N	No	No		80	20	38	27	80	30	20	25			3	1920	116	24.2	14.4	7.4	28.2
AOU401	Obsolete		TO-251	Single	General Purpose	P	No	No		-60	20	-26	-18	60	30	40	55			-2.4	2977	153	22.2	10	12	38
AOU402	Obsolete		TO-251	Single	General Purpose	N	No	No		60	20	12	8.5	20	10	80	85			3	385	20	3.8	1.9	4.2	10
AOU403	Obsolete		TO-251	Single	General Purpose	P	No	No		-60	20	-12	-10	50	25	115	150			-3	987	46	7.4	3.5	5	25
AOU404	Obsolete		TO-251	Single	General Purpose	N	No	No		75	25	10	10	20	10	140	165			3	293	20	*5.2	1.34	4.6	14.7
AOU405	Obsolete		TO-251	Single	General Purpose	P	No	No		-30	20	-18	-18	60	30	34	80			-2.4	920	122	9.7	5.4	5	20
AOU408	Obsolete		TO-220	Single	General Purpose	N	No	No		105	25	40	28	100	50	28				4	2038	85	*38.5	10	12.7	31.3
AOU412	Obsolete		TO-251	Single	SMPS High Side	N	No	No		30	20	85	65	100	50	7.5	11			2.5	1320	154	13.3	6.6	7.2	22
AOU413	Obsolete		TO-251	Single	General Purpose	P	No	No		-40	20	-12	-12	50	25	45	69			-3	657	63	7	4.1	6	24
AOU414	Obsolete		TO-251	Single	SMPS Low Side	N	No	No		30	20	85	73	100	50	5.7	7.5			2.4	6060	355	48.4	15.6	15.7	55.5
AOU417	Obsolete		TO-251	Single	Inverter	P	No	No		-30	20	-18	-18	50	25	22	40			-2.7	1575	241	15	7	11.7	42
AOU436	Obsolete		TO-251	Single	SMPS High Side	N	No	No		30	20	57	40	50	25	8.5	14			3	1520	214	16.2	9.6	7	24.2
AOU438	Obsolete		TO-251	Single	SMPS Low Side	N	No	No		30	20	85	69	100	50	4.5	6.5			3	3700	390	33	17.6	12	40
AOU452	Obsolete	AOI452	TO-251	Single	General Purpose	N	No	No		25	20	55	40	50	25	9	15			3	1230	190	13.5	7.75	6.5	22.7
AOU454	Obsolete		TO-251	Single	General Purpose	N	No	No		40	20	12	12	20	10	33	47			3	404	37	4.5	2.6	3.5	13.2
AOU456	Obsolete		TO-251	Single	General Purpose	N	No	No		25	20	50	50	50	25	7	10			3	1850	275	36	8.2	7.5	30
AOU460	Obsolete		TO-251	Single	SMPS	N	No	No		25	20	25	25	30	15	14	24			2.5	830	127	7.4	4.3	8	30
AOU472	Obsolete	AOI472	TO-251	Single	SMPS Low Side	N	No	No		25	20	50	50	50	25	8.7	10			2.5	2050	260	17	3.5	7.5	27

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AMENDED EXHIBIT 6

INFRINGEMENT OF U.S. PATENT NO. 6,429,481

AOS AO4410 POWER MOSFET

CLAIM	AO4410 POWER MOSFET
1. A trenched field effect transistor comprising:	The AOS AO4410 Power MOSFET ("the accused device") is a trenched field effect transistor. (Fig. AO4410-1 (datasheet); Fig. AO4410-2 (package marking).)
a semiconductor substrate having dopants of a first conductivity type;	The accused device is an N-channel MOSFET, which is therefore formed on a substrate of doped N-type silicon. In the language of the claim, the N-type dopants in the substrate are a "first conductivity type." (Fig. AO4410-1 (datasheet); Fig. AO4410-3 (Scanning Electron Microscopy image), item A; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item A.)
a trench extending a predetermined depth into said semiconductor substrate;	The accused device has a trench extending to a predetermined depth into the substrate. (Fig. AO4410-3 (Scanning Electron Microscopy image), item B; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item B.)
a pair of doped source junctions having dopants of the first conductivity type, and positioned on opposite sides of the trench;	The accused device has a pair of source junctions (regions) positioned on opposite sides of the trench. (Fig. AO4410-3 (Scanning Electron Microscopy image), item C; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item C.) Because the accused device is an N-channel MOSFET, the source junctions (regions) are formed with N-type dopants, which are dopants of the first conductivity type. (Fig. AO4410-4 (Scanning Capacitance Microscopy image), item C.)
a doped well having dopants of a second conductivity type opposite to said first conductivity type, and formed into the substrate to a depth that is less than said predetermined depth of the trench; and	The accused device has a lightly doped well formed with P-type dopants (a second conductivity type opposite to the first conductivity type) that is formed in the substrate, and the depth of the doped well is less than the predetermined depth of the trench. (Fig. AO4410-3 (Scanning Electron Microscopy image), item D; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item D.)
a doped heavy body having dopants of the second conductivity type, and positioned adjacent each source junction on the opposite side of the source junction from the trench, said heavy body extending into said doped well to a depth that is less than said depth of said doped well,	The accused device has a highly doped heavy body formed with a higher concentration of P-type dopants (the second conductivity type) that is positioned adjacent to each source junction on the opposite side of the source junction from the trench. The P-type heavy body extends to a depth that is less than the depth of the well. (Fig. AO4410-3 (Scanning Electron Microscopy image), item E; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item E.)
wherein the heavy body forms an abrupt junction with the well and the depth of the junction, relative to the depth of the well, is adjusted so that a transistor breakdown initiation point is spaced away from the trench in the semiconductor, when voltage is applied to the transistor.	The junction between the doped P-type heavy body and the well is an abrupt junction. (Fig. AO4410-5 (Secondary Ion Mass Spectroscopy data).) This abrupt junction creates a peak electric field when voltage is applied to the accused device, and the depth of this abrupt junction relative to the depth of the well is such that the peak electric field causes the breakdown initiation point to be spaced away from the trench.

CLAIM	AO4410 POWER MOSFET
2. The trenched field effect transistor of claim 1 wherein said doped well has a substantially flat bottom.	The accused device has a doped well with a substantially flat bottom. (Fig. AO4410-3 (Scanning Electron Microscopy image), item D; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item D.)
3. The trenched field effect transistor of claim 1 wherein said trench has rounded top and bottom corners.	The trench of the accused device has a rounded top and bottom. (Fig. AO4410-3 (Scanning Electron Microscopy image), item B; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item B.)
4. The trenched field effect transistor of claim 1 wherein the abrupt junction causes the transistor breakdown initiation point to occur in the area of the junction, when voltage is applied to the transistor.	The abrupt junction in the accused device creates a peak electric field in the area of the junction when voltage is applied, so that the transistor breakdown initiation point occurs in the area of the abrupt junction. (Fig. AO4410-5 (Secondary Ion Mass Spectroscopy data).)
6. An array of transistor cells comprising:	The accused device has an array of transistor cells. (Fig. AO4410-7 (Scanning Electron Microscopy image), item H.)
a semiconductor substrate having a first conductivity type;	The accused device is an N-channel MOSFET, which is therefore formed on a substrate of doped N-type silicon. In the language of the claim, the N-type dopants in the substrate are a "first conductivity type." (Fig. AO4410-1 (datasheet); Fig. AO4410-3 (Scanning Electron Microscopy image), item A; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item A.)
a plurality of gate-forming trenches arranged substantially parallel to each other, each trench extending a predetermined depth into said substrate and the space between adjacent trenches defining a contact area;	The accused device has gates formed using a design with substantially parallel trenches, with the trenches extending to a predetermined depth into the substrate and contact areas formed between the parallel trenches. (Fig. AO4410-7 (Scanning Electron Microscopy image), items I and L; Fig. AO4410-3 (Scanning Electron Microscopy image), item B; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item B.)
a pair of doped source junctions, positioned on opposite sides of the trench and extending along the length of the trench, the source junctions having the first conductivity type;	The accused device has a pair of source junctions (regions) positioned on opposite sides of the trench and extending along the length of the trench. (Fig. AO4410-3 (Scanning Electron Microscopy image), item C; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item C.) Because the accused device is an N-channel MOSFET, the source junctions (regions) are formed with N-type dopants, which are dopants of the first conductivity type. (Fig. AO4410-4 (Scanning Capacitance Microscopy image), item C.)
a doped well having a second conductivity type with a charge opposite that of the first conductivity type, the doped well formed in the semiconductor substrate between each pair of gate-forming trenches;	The accused device has a lightly doped well formed with P-type dopants (a second conductivity type opposite to the first conductivity type) that is formed in the substrate between each pair of gate-forming trenches. (Fig. AO4410-3 (Scanning Electron Microscopy image), item D; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item D.)
a doped heavy body having the second conductivity type formed inside the doped well and positioned adjacent each source junction, the deepest portion of said heavy body extending less deeply into said semiconductor substrate than said predetermined depth of said trenches; and	The accused device has a highly doped heavy body formed with a higher concentration of P-type dopants (the second conductivity type) that is formed inside the doped well and positioned adjacent to each source junction. The deepest portion of the P-type heavy body extends to a depth in the substrate that is less than the predetermined depth of the trenches. (Fig. AO4410-3 (Scanning Electron Microscopy image), item E; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item E.)
alternating heavy body and source contact regions defined at the surface of the semiconductor substrate along the length of the contact area.	The accused device has alternating doped heavy body and source contact regions at the surface of the substrate along the length of the contact area. (Fig. AO4410-7, items J and K.)

CLAIM	AO4410 POWER MOSFET
wherein the heavy body forms an abrupt junction with the well, and a depth of the heavy body relative to a depth of the well is adjusted so that breakdown of the transistor originates in the semiconductor in a region spaced away from the trenches when voltage is applied to the transistor.	The junction between the highly doped P-type heavy body and the lightly doped P-type well is an abrupt junction. This abrupt junction creates a peak electric field when voltage is applied to the accused device, and the depth of this abrupt junction relative to the depth of the well is such that the peak electric field causes the breakdown initiation point to be spaced away from the trench. (Fig. AO4410-5 (Secondary Ion Mass Spectroscopy data).)
7. The array of transistor cells of claim 6, wherein each said doped well has a substantially flat bottom.	The accused device has a doped well with a substantially flat bottom. (Fig. AO4410-3 (Scanning Electron Microscopy image), item D; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item D.)
8. The array of transistor cells of claim 6 wherein the controlled depth of the junction causes the breakdown origination point to occur approximately halfway between adjacent gate-forming trenches.	The depth of the abrupt junction is selected to cause the breakdown origination point to occur approximately halfway between adjacent gate-forming trenches. (Fig. AO4410-5 (Secondary Ion Mass Spectroscopy data).)
10. The array of transistor cells of claim 6 wherein each said gate-forming trench has rounded top and bottom corners.	The trench of the accused device has rounded top and bottom corners. (Fig. AO4410-3 (Scanning Electron Microscopy image), item B; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item B.)
11. The array of transistor cells of claim 9 further comprising a field termination structure surrounding the periphery of the array.	The accused device has a field termination structure surrounding the periphery of the array. (Fig. AO4410-6, item A.)
18. The trenched field effect transistor of claim 1 further comprising an epitaxial layer having dopants of the first conductivity type, and formed between the substrate and the doped well, with no buried layer formed at an interface between the epitaxial layer and the substrate.	The accused device has an N-type epitaxial layer (formed with dopants of the first conductivity type) located between the N-type substrate and the lightly doped P-type well. (Fig. AO4410-3 (Scanning Electron Microscopy image), item F; Fig. AO4410-4 (Scanning Capacitance Microscopy image), item F.) There is no indication of a buried layer formed at the interface between the epitaxial layer and the substrate.
21. The trenched field effect transistor of claim 6, further comprising:	
an epitaxial layer having the first conductivity type formed between the substrate and the well, with no buried layer formed at an interface between the epitaxial layer and the substrate.	The accused device has an N-type epitaxial layer (formed with dopants of the first conductivity type) located between the N-type substrate and the lightly doped P-type well. (Fig. AO4410-3, item F.) There is no indication of a buried layer formed at the interface between the epitaxial layer and the substrate.

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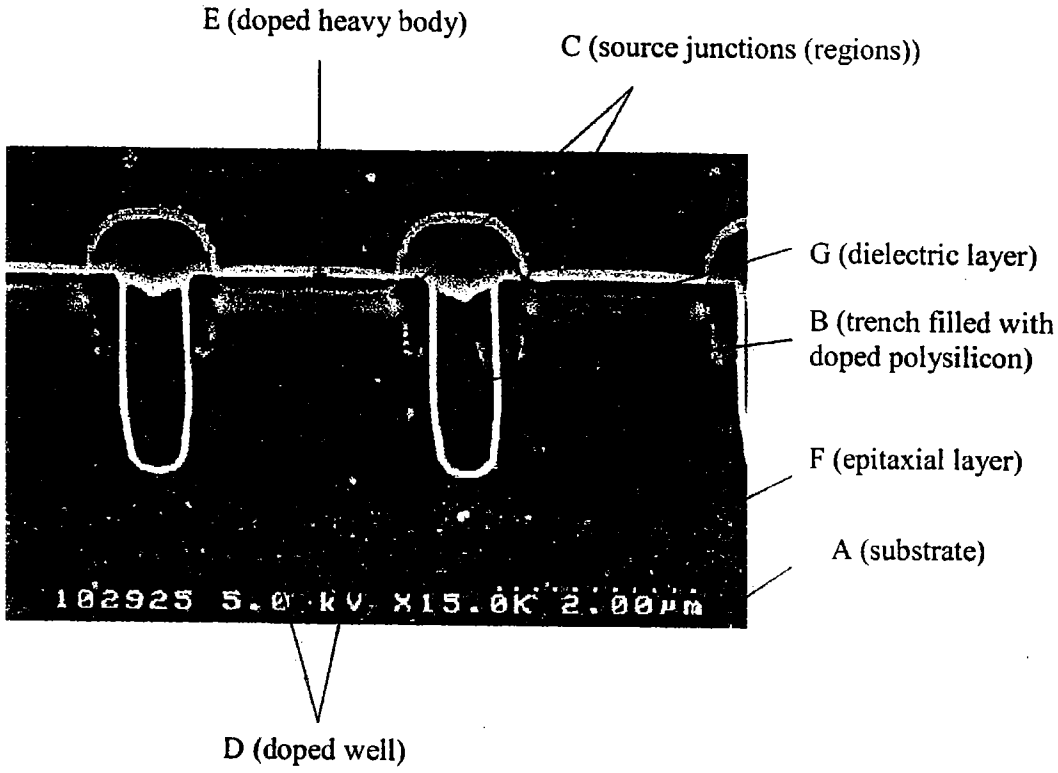
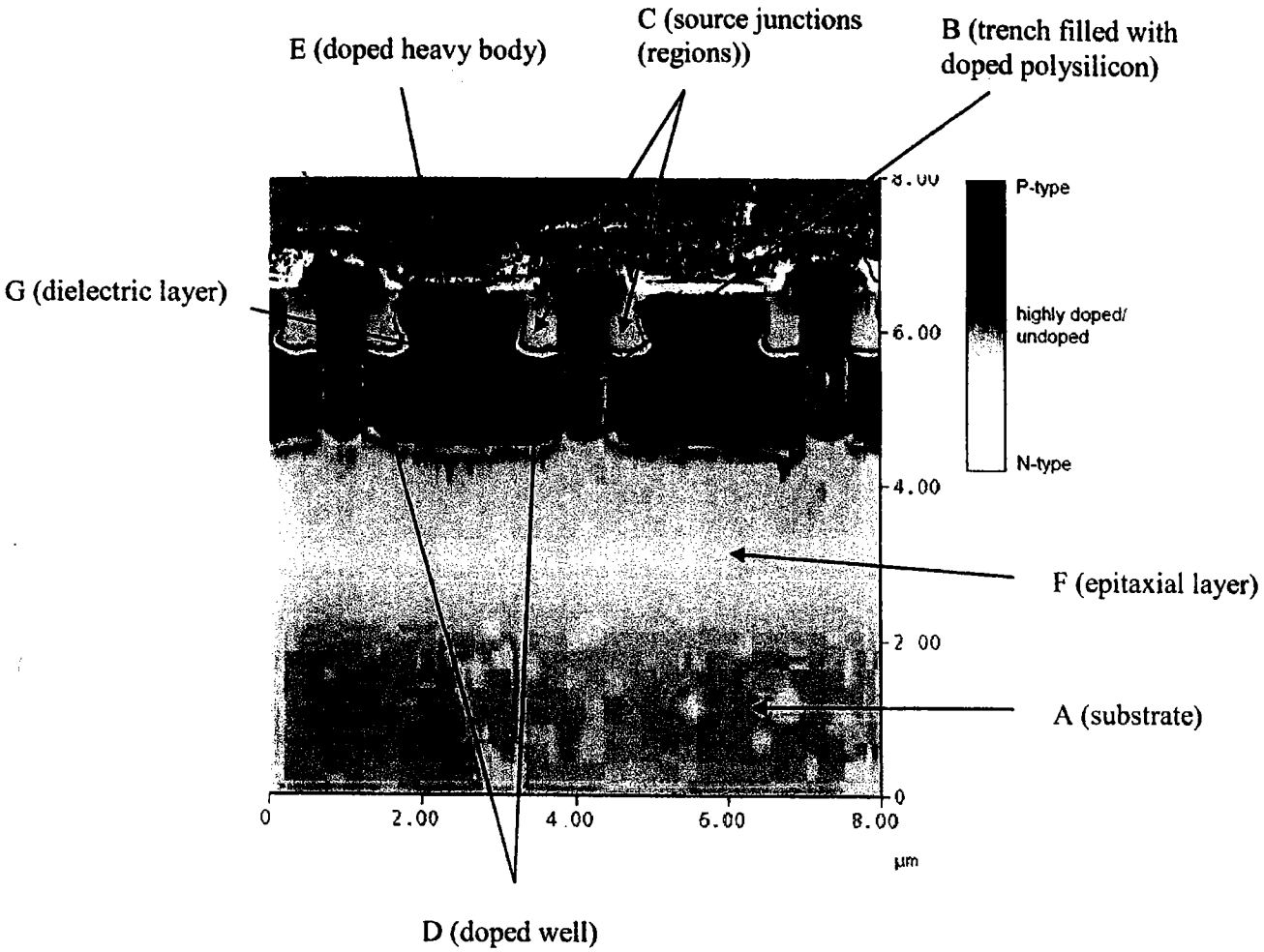
FIGURE AO4410-3



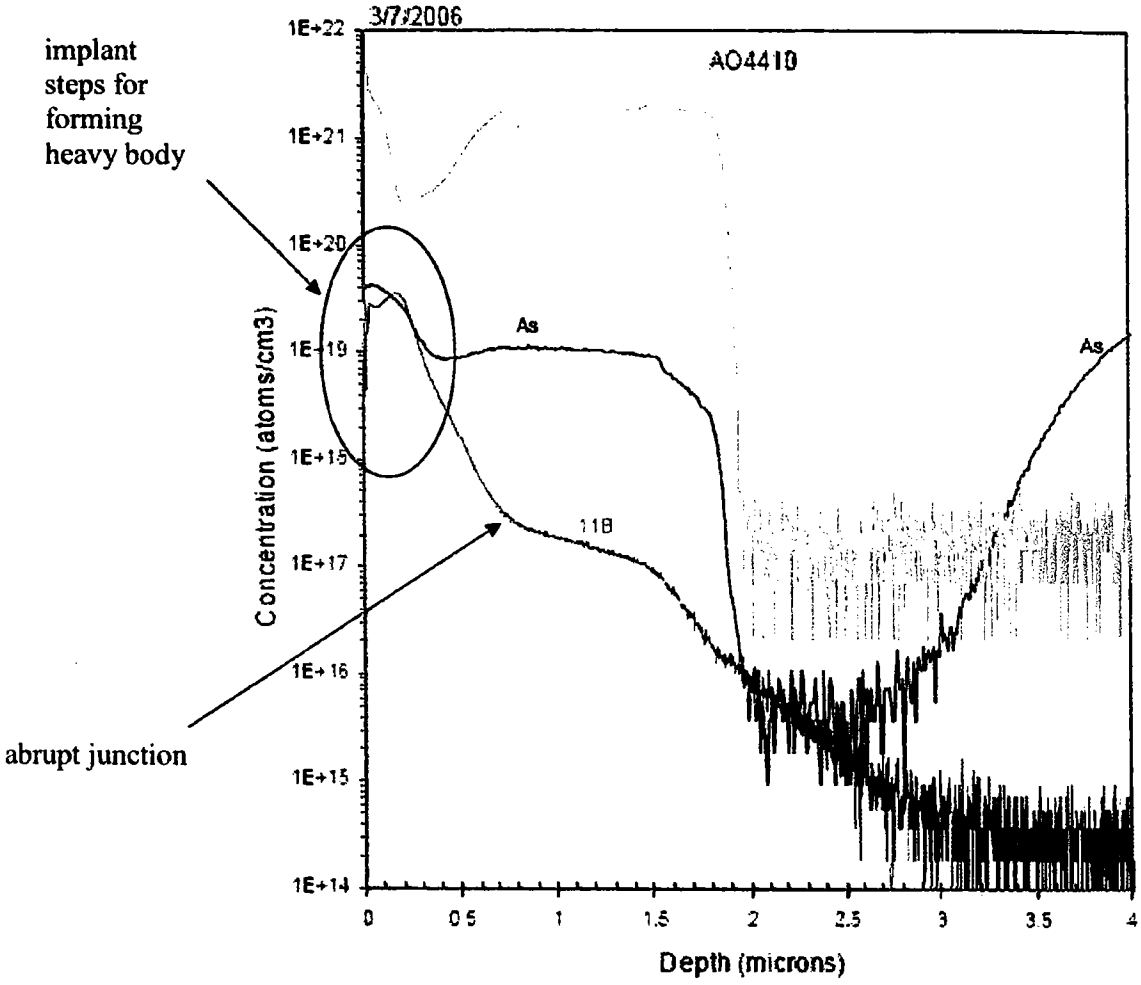
Scanning Electron Microscopy Image of Cross-Section of MOSFET Array for AO4410

FIGURE AO4410-4



Scanning Capacitance Microscopy Image of Cross-Section of MOSFET Array for AO4410

FIGURE AO4410-5



Secondary Ion Mass Spectroscopy Data for Boron, Arsenic, and Oxygen in MOSFET Array for AO4410